R' is selected from H and C₁ to C₃ alkyl;

R" is selected from H and C_1 to C_3 alkyl;

both R' and R" are nonterminally attached to L and at least one of R' and R" is C_1 to C₃ alkyl;

R''' is selected from H and C_1 to C_3 alkyl; and

A is aryl

wherein:

said alkylaryl composition comprises two or more isomers with respect to positions of attachment of R', R" and A to L:

in at least about 60% of said alkylaryl composition, A is attached to L in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof; and

wherein further said alkylaryl composition has a ratio of nonquaternary to quaternary carbon atoms in L of at least about 10:1 by weight, when said quaternary carbon atoms are present.

(amended). An alkylaryl composition suitable as a source for alkylarylsulfonate surfactants, wherein said composition comprises at least two isomers, counted exclusive of ortho-, meta-, para-, and stereoisomers, of an alkylaryl of the formula:

T,0680

wherein A is aryl; R" is selected from H and C_1 to C_3 alkyl; R' is selected from hydrogen and C_1 to C_3 alkyl; R" is selected from hydrogen and C_1 to C_3 alkyl; and R"" is selected from hydrogen and C_1 to C_4 alkyl; v is an integer from 0 to 10; x is an integer from 0 to 10; y is an integer from 0 to 10; wherein:

the total number of carbon atoms attached to A is less than about 20; said alkylaryl composition comprises two or more isomers with respect to positions of attachment of R', R" and A to the moiety

 $R^{\text{\tiny{IIII}}}\text{-}C(\text{--})H(CH_2)_vC(\text{--})H(CH_2)_xC(\text{--})H(CH_2)_y\text{-}CH_3 \text{ of this formula; } \\$

at least one of R' and R" is C_1 to C_3 alkyl; when R"" is C_1 , the sum of v + x + y is at least 1; and when R"" is H, the sum of v + x + y is at least 2; and in at least about 60% of said alkylaryl composition, A is attached to the moiety R""-C(-)H(CH₂)_vC(-)H(CH₂)_vC(-)H(CH₂)_y-CH₃ in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof; wherein further said alkylaryl composition has a ratio of nonquaternary to quaternary carbon atoms in the moiety

 $R''''-C(-)H(CH_2)_vC(-)H(CH_2)_xC(-)H(CH_2)_y-CH_3$

of at least about 10:1 by weight, when said quaternary carbon atoms are present.

26. (amended) An alkylaryl composition suitable as a source for making alkylarylsulfonate surfactants, wherein said composition comprises:

a) from about 0.01% to about 99.99% by weight of an alkylaryl composition comprising at least two isomers of an alkylaryl of the formula:



T,0690



wherein:

L is an acyclic aliphatic hydrocarbyl of from 6 to 18 carbon atoms in total;

R' is selected from H and C₁ to C₃ alkyl;

R" is selected from H and C_1 to C_3 alkyl;

both R' and R" are nonterminally attached to L and at least one of R' and R" is C_1 to C_3 alkyl;

R" is selected from H and C1 to C3 alkyl; and

A is aryl

wherein:

said alkylaryl composition comprises two or more isomers with respect to positions of attachment of R', R" and A to L;

in at least about 60% of said alkylaryl composition, A is attached to L in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof; and

wherein further said alkylaryl composition has a ratio of nonquaternary to quaternary carbon atoms in L of at least about 10:1 by weight, when said quaternary carbon atoms are present; and

b) from about 0.01% to about 99.99% by weight of at least one isomer of the linear analog of said alkylaryl (a).

(amended) An alkylaryl composition suitable as a source for making alkylarylsulfonate surfactants, wherein said composition comprises:



a) from about 0.01% to about 99.99% by weight of an alkylaryl composition comprising at least two isomers, counted exclusive of ortho-, mcta-, para- and stereoisomers, of an alkylaryl of the formula:

$$\begin{array}{c} R'''' \longrightarrow CH \longrightarrow CH_2 \longrightarrow CH_2 \longrightarrow CH_2 \longrightarrow CH_2 \longrightarrow CH_2 \longrightarrow CH_3 \\ \downarrow \\ A \\ \downarrow \\ R''' \end{array}$$

wherein A is aryl; R'" is selected from H and C1 to C3 alkyl; R' is selected from hydrogen and C1 to C3 alkyl; R" is selected from hydrogen and C1 to C3 alkyl; and R"" is selected from hydrogen and C1 to C4 alkyl; v is an integer from 0 to 10; x is an integer from 0 to 10; y is an integer from 0 to 10;

wherein:

the total number of carbon atoms attached to A is less than about 20;

said alkylaryl composition comprises two or more isomers with respect to positions of attachment of R', R" and A to the moiety

 $R''''-C(-)H(CH_2)_VC(-)H(CH_2)_XC(-)H(CH_2)_V-CH_3$ of this formula;

at least one of R' and R" is C_1 to C_3 alkyl; when R"" is C_1 , the sum of v + x + y is at least 1; and when R^{vr} is H, the sum of v + x + y is at least 2; and in at least about 60% of said alkylaryl composition, A is attached to the moiety R''''-C(-)H(CH₂)_vC(-)H(CH₂)_xC(-)H(CH₂)_y-CH₃ in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof; wherein further said alkylaryl composition has a ratio of nonquaternary to quaternary carbon atoms in the moiety

 $R''''-C(-)H(CH_2)_vC(-)H(CH_2)_xC(-)H(CH_2)_y-CH_3$